## **CLAIMS**

- An image transmission system for a mobile robot, comprising:
   a camera for capturing an image as an image signal;
- human detecting means for detecting a human from the captured image;
  a power drive unit for moving the robot toward the detected human;
  face identifying means for identifying a position of a face of the detected human;

face image cut out means for cutting out a face image from the captured image

10 of the detected human; and

image transmitting means for transmitting the cut out face image to an external terminal.

- An image transmission system according to claim 1, further comprising means
   for monitoring state variables including a current position of the robot; the image transmitting means transmitting the monitored state variables in addition to the cut out face image.
- 3. An image transmission system according to claim 1, wherein the robot is20 adapted to direct the camera toward the position of the face of the detected human.
  - 4. An image transmission system according to claim 1, further comprising means for measuring a distance to each of a plurality of humans, the human detecting means being provided with means for detecting a human closest to the robot.

- 5. An image transmission system according to claim 1, wherein the mobile robot is adapted to move toward the detected human according to a distance to the detected human.
- 5 6. An image transmission system according to claim 1, further comprising a face database that stores images of a plurality of faces and face identifying means for comparing the cut out face image with the faces stored in the face database to identify the cut out face image.
- 7. An image transmission system according to claim 1, wherein the face identifying means comprises means for detecting an outline of the detected human, and identifying a face as an area defined under an upper part of the outline of the detected human.
- 8. An image transmission system according to claim 1, wherein the human detecting means is adapted to detect a human as a moving object that changes in position from one frame of the image to another.